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Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

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FEDERAL COMMUNICATIONS COMMISSION
OFFICE OF THE SECRETARY

In the Matter of)	
Expanded Interconnection with)	CC Docket No. 91-141
Local Telephone Company Facilities)	
)	
Amendment of the Part 69)	
Allocation of General Support)	CC Docket No. 92-222
Facility Costs)	

**REPLY TO OPPOSITION TO PETITION FOR
PARTIAL RECONSIDERATION**

Penn Access Corporation ("Penn Access"), by and through its attorneys, and pursuant to Section 1.429 of the Commission's Rules, 47 C.F.R. § 1.429 (1992), hereby replies to the Oppositions of GTE, the Ameritech Operating Companies ("Ameritech"), the United Telephone Companies ("United") and the United States Telephone Association ("USTA") to the Petition for Partial Reconsideration ("Petition") of Penn Access.^{1/} Contrary to the assertions contained in the Oppositions, the Commission should reconsider, in part, its Report and Order in the above-captioned matter and permit Competitive Access Providers ("CAPs") to interconnect with Local Exchange Carriers ("LECs") using coaxial cable.

^{1/} It should be noted that the Oppositions of Ameritech, United and USTA were not served on counsel for Penn Access and counsel was not made aware of these filings until the due date of the Reply. Accordingly, Penn Access requests the Commission to strike those filings. See 47 C.F.R. §§ 1.427(f) and 1.47(d). Nevertheless, Penn Access addresses those Oppositions in this Reply. However, in order to sufficiently apprise the Commission of the arguments for coaxial cable interconnection, Penn Access also requests a waiver of Section 1.427(g) of the Commission's Rules which limits replies to ten pages.

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In its Petition, Penn Access demonstrated that the record in this matter does not support the Commission's finding that coaxial cable interconnection requires the prior approval of the Common Carrier Bureau. To the contrary, coaxial cable interconnection is not only space efficient but it is less costly and supports the Commission's goal of increased competition. Thus, Penn Access requested the Commission to reconsider its holding and, in the process, to lift the burden of showing that coaxial cable interconnection is in the public interest from those least able to bear that burden.

Generally, each of the opposing parties claim that fiber optic cable is more efficient than coaxial cable. They also dispute the cost savings of coaxial cable interconnection. However, they ignore altogether the showing of Penn Access that the Commission's holding lessens competition and that LECs are better able to bear the cost and fact burden of whether coaxial cable interconnection is in the public interest.

In support of its claim that fiber is more efficient, GTE states that "several fiber cables serving more than one interconnecting party can be placed in the same duct and riser space" that coaxial cable would use to only serve "a single interconnecting entity."^{2/} By way of explanation, GTE uses the example of a 4 inch duct stating that "[m]ultiple fiber cable innerducts . . . are typically placed within a single

^{2/} GTE Opposition at 15.

duct at the time of initial installation" whereas "[t]raditional" coaxial cable is generally placed in a duct without innerducts thereby preventing additional cable placements "at a later time" due to "risk of damage."^{3/}

Contrary to these assertions, multiple innerducts of coaxial cables serving multiple "interconnecting entities" can be placed in the same duct. For example, and as shown in Attachment B to the Petition of Penn Access, an innerduct of 1 and 1/4 inches can house nineteen coaxial cables. In turn, a 4 inch duct can house four such innerducts and each such innerduct may serve separate "interconnecting entities."

Moreover, ducts are arranged to accept the placement of fiber or cable at the same time or they are arranged to accept such placements at staggered times. If the former, it is inconsequential whether the duct contains fiber or cable. If the latter, the fiber or coaxial cable may be sheathed in innerducts to avoid any risk of damage by subsequent placements.

In short, GTE's statement that "at least four fiber cables are typically put in the space occupied by one, or at most two, coaxial cables" is simply incorrect.^{4/}

GTE continues its claim that fiber is more efficient by comparing the capacity of fiber with the capacity of coaxial

^{3/} Id. at 15-16.

^{4/} Id. at 16.

cable. Penn Access never denied that fiber has a greater capacity.^{5/} Instead, Penn Access showed that the use of coaxial cable benefits small to medium-sized CAPs because it avoids unnecessary costs while at the same time meeting the needs of their customers.^{6/} GTE completely misses this point. Why, for instance, should a CAP be required to purchase, construct and maintain additional and unnecessary fiber optic facilities when coaxial cable will serve the same purpose? Clearly, such a requirement serves neither the CAP nor its customers and is not, therefore, in the public interest. The CAP and its customers are in the best position to determine their present and future facility requirements regardless of the capacity the LEC may desire to "sell" to the CAP.

GTE next claims that Penn Access may not have made "an apples-to-apples comparison" when it stated that coaxial cable interconnection would, in the words of GTE, "be one-tenth the cost for interconnection of its Pittsburgh operations."^{7/} GTE states that coaxial cable interconnection would require an additional multiplexer, new coaxial cable and if the

^{5/} See, e.g., Petition at 4.

^{6/} As Penn Access also stated, however, "even large CAPs may only require coaxial cable in those instances where they do not have sufficient capacity needs to justify fiber optic facilities." Id. at note 10.

^{7/} GTE Opposition at 16.

interconnection is greater than 450 feet, "a signal regeneration device".^{8/} GTE's comments are irrelevant with regard to the example cited by Penn Access.

The savings cited by Penn Access pertained to the additional cost of purchasing, installing and maintaining optical terminals in collocated space that would not be required if Penn Access interconnected with coaxial cable.^{9/} The multiplexer referred to by GTE exists regardless of whether Penn Access uses fiber or coaxial cable. In other words, the cost of such equipment for comparative purposes is zero. Furthermore, the cost difference between new coaxial cable and fiber is de minimus and since the distance of the interconnection would, in the instance cited by Penn Access, be less than 450 feet, Penn Access does not require a "signal regeneration device." Even if it did require such a device, the cost difference between coaxial cable and fiber interconnection would still be significant.

GTE concludes by stating that the Commission should not allow "older, no-longer-current [sic] technology" and, ironically, that the "major revision" proposed by Penn Access

8/ Id. at 16-17.

9/ The cost savings cited by Penn Access do not include the other costs of fiber interconnection such as the cost of equipment maintenance and testing, training, space and associated equipment. Indeed, not only does coaxial cable interconnection avoid those costs but it also avoids the problems related to collocation including entry onto LEC premises and the security concerns surrounding such entry.

"would upset the balance between the impact upon LEC facilities and the encouragement of competition."^{10/} Yet the Commission has allowed for antiquated microwave interconnection which can be analog as well as digital. Moreover, coaxial cable is the medium by which all interconnectors, whether they use microwave or fiber, interconnect with the LEC, that is, coaxial cable is the last and final link between an interconnector and a LEC.^{11/}

Penn Access is merely asking that the medium by which to get to that last link include coaxial cable. In that case, coaxial cable would be the end-to-end medium, thereby avoiding the costs of fiber optic equipment and space as well as other costs of fiber optic interconnection such as repair, maintenance and training. Avoiding those costs will allow more competition and lower rates to subscribers. Otherwise, CAPS will be required to spend dollars for unwanted and unneeded facilities and personnel. If anything, therefore, the Commission's Report and Order upsets the balance referred to by GTE whereas the request of Penn Access restores that relationship.

Ameritech does not have much to add. Similar to GTE, Ameritech cites the capacity of fiber which Penn Access does

^{10/} Id. at 17.

^{11/} See Gilder, Cable's Secret Weapon, Forbes, Apr. 13, 1992, at 80 which discusses the state-of-the-art use of coaxial cable.

not dispute. Ameritech also claims that "[t]he question raised by Penn Access is essentially a question of rationing the available space among interconnectors"^{12/} Again, however, if the interconnectors only need the capacity provided by coaxial cable what difference does it make if the interconnector uses an innerduct with coaxial cable that takes up the same amount of space as an innerduct containing fiber? The answer is clearly "none". If at a later point in time the interconnector requires fiber, it can replace the coaxial cable without harm to other fiber or, for that matter, coaxial cable, because they will be protected by innerducts. In the event that innerduct is not used because, for instance, the placement of cable or fiber in the duct occurred at the same time, the interconnector will then make the decision based on existing and future needs. If future needs require more capacity than coaxial cable, the interconnector will use fiber. The point is simply that the interconnector, not the LEC, should decide upon its capacity requirements and, hence, facility needs.

Ameritech also states that the burden of showing a need for coaxial cable interconnection should remain with the interconnector because although the question of available space is relevant, the answer to this question "will be readily

^{12/} Ameritech Opposition at 9. Penn Access assumes that Ameritech's statement refers to duct space because as shown above and in the Petition of Penn Access, coaxial cable interconnection avoids the space problems associated with fiber.

ascertainable from the LEC."^{13/} Ameritech also states that "[t]he more crucial question," however, is "whether the public interest is served by using the available space" for coaxial cable.^{14/}

By Ameritech's admission, the LEC possesses the information of available space. The question of whether the public interest is served should be presumed by the mere fact that the interconnector wants to use coaxial cable. Stated differently, an interconnector would not use facilities that it did not believe best served its customers.

Based on its statement that a "LEC should not be required to bypass its hubbing offering," United argues that "it is not an unreasonable restraint on collocation to require fiber only interconnection."^{15/} United is seemingly confused about the position of Penn Access.^{16/} Penn Access never suggested that the LEC bypass "its hubbing offering." The aggregation that occurs with fiber and, presumably, microwave interconnection,

^{13/} Id.

^{14/} Id.

^{15/} United Opposition at 13-14.

^{16/} United's opposition to Penn Access is an afterthought to its argument against Teleport which, in the words of United, "seeks interconnection at the DS0 level." Id. at 13. Penn Access did not request such interconnection. Interestingly, opposing parties, such as USTA, have recognized the separate and different argument of Teleport by addressing it in a different part of their Oppositions. See, e.g., USTA Opposition at 22 et seq.

would also occur with coaxial cable. In other words, coaxial cable interconnection could occur at the DS3 level. Thus, and also contrary to the statement of United, coaxial cable interconnection would not require the routing of "great quantities of coaxial cable through . . . [the LEC's] building to terminate at a CAP multiplexer."^{17/}

USTA states that the Commission should not "force" LECs to accept coaxial cable interconnection because "[f]iber is clearly the favored media for transmission of digital communications."^{18/} Ignoring the contradiction that this statement holds for microwave interconnection, USTA further states without any foundation that coaxial cable interconnection will "undermine fiber deployment," that as allegedly described by Penn Access coaxial cable interconnection is "transitory" and that the LEC will be "left with an investment that is not usable when collocators like Penn Access change over to fiber."^{19/}

Coaxial cable will not undermine fiber deployment. Fiber deployment will be used when and if it is necessary. Penn Access never stated that coaxial interconnection is transitory. Instead, Penn Access stated that coaxial cable serves some needs while fiber and, possibly, microwave, serves

^{17/} United Opposition at 14.

^{18/} USTA Opposition at 21.

^{19/} Id.

other purposes. Thus, in this sense, they are not exclusive of each other; if anything, an interconnector may find that its needs change thereby requiring a shift to a different medium. Finally, a LEC will not be left with any stranded investment. As stated throughout this Reply and in the Petition of Penn Access, the use of coaxial cable will avoid the need for additional equipment because coaxial cable is the medium by which final interconnection with the LEC must occur anyhow and in any event.

USTA claims that coaxial interconnection would "consume available entrance space and user ducts far more rapidly than fiber" because of "significant differences in their capacity and "the larger comparative physical diameter of coaxial cable."^{20/} USTA concludes this thought by also arguing without any support that coaxial cable interconnection may require "different equipment" which will use up "additional valuable central office space."^{21/}

USTA, similar to the other parties opposing Penn Access, ignores the clear and unrefutable fact that coaxial cable interconnection will take up the same duct space that will be taken up by fiber but will avoid the equipment needs of fiber. In the process, the CAP will have the option of using less costly facilities to meet the needs of its customers.

^{20/} Id. at 21.

^{21/} Id. at 22.

USTA completes its opposition to Penn Access by arguing that coaxial cable interconnection will favor AT&T and cites the percentage of AT&T POPs in the same building as Tier 1 LEC facilities.^{22/} USTA concludes that not only will such interconnection, therefore, have an "impact on interexchange competition" but that "the overall national network would utilize less fiber . . ."^{23/}

Aside from the fact that USTA does not even describe any detrimental competitive effects, its argument assumes that AT&T's traffic needs in all of the Tier 1 LEC locations will allow for coaxial cable interconnection. Its comment regarding the national network is equally unfounded and misses the point. Fiber should not be used for the sake of fiber. If coaxial cable can accommodate the needs of an interconnector and its customers, it should be allowed.

Penn Access has demonstrated that coaxial cable interconnection is another means by which to provide CAP services but without the added tangible and intangible costs associated with fiber and microwave. As a result, it permits that much more flexibility to meet customer needs and that much more competition in the marketplace. Those parties opposing Penn Access ignore this vital point and concentrate on the capacity differences between fiber and coaxial cable from which

^{22/} Id.

^{23/} Id.

they conclude that the space requirements of cable are far greater. What they miss, however, is the plain fact that coaxial cable will not take up any more space but will avoid the additional and unnecessary costs associated with fiber and microwave interconnection. In the end, of course, the consuming public will gain by not only reduced costs of service but increased competition with all of its attendant benefits.

Respectfully submitted,


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February 16, 1993

CERTIFICATE OF SERVICE

I hereby certify that copies of the foregoing REPLY TO
OPPOSITION TO PETITION FOR PARTIAL RECONSIDERATION have been
sent by United States First Class mail, postage prepaid, on
this 16th day of February, 1993, to all parties of record.


Simin Barbour